

Paleontology at Petrified Forest National Park

Kids' Corner

DIARY OF A PALEONTOLOGIST. . .

In the field...

The sun bums the back of my neck. A heavy drop of sweat rolls down my nose, drops off, and plop! It just misses my pencil as I'm writing in my notebook. My fingernails are dirty and sand coats my skin. Yet, I am as happy as I have ever been! I brush away more of the dirt and clay that covers more than 200 million year old bone. I have only a few pieces left before the fossil comes out of its rock tomb, and I take it to the laboratory for study.

In the laboratory...

I use the same kind of tools my dentist uses when he cleans my teeth - a sharp pick, a tiny air blower. I clean rock off the fossilized bones, using magnifying lenses to watch close, making sure I don't do any damage. It takes me many months of hard work to clean all the pieces and understand the shape of the animal they were once a part of. Many of the bones are missing, but I found enough to identify the creature as an early dinosaur of the Late Triassic Period.

In the office...

The glow from my computer is the only light in my office. I finish typing my notes and look over at the dinosaur bones. The fossil is ready for the museum collection. I gently touch one of the bones, and I imagine the living, breathing animal it was once part of. I catch a glimpse of movement, a flash of color, a shape disappearing into a green forest - for a moment, the animal is alive once again.

TRIASSIC TUNES

Do you like to sing? Learn the words and motions of this tune about the Triassic animals of Petrified Forest National Park. Sing to the tune of "If You're Happy and You Know It Clap You're Hands."

Verse one

Oh, the phytosaur (fie-toe-sore) it was a mighty beast,  
Grr- owl (make growling sounds)  
Oh, the phytosaur it was a mighty beast,  
Grr-owl  
It measured thirty feet in length  
Weighed a ton and gulped down meat.  
Oh, the phytosaur it was a mighty beast!

Verse two

Oh *Placerias* (pla-sair-e-us) was an herbivore,  
Munch, munch, (say it loud and clap outstretched arms together)  
Oh, *Placerias* was an herbivore,  
Munch, munch  
It ate leaves, plants, young "shoots",  
Used its tusks to dig up roots  
Oh, *Placerias* was an herbivore.

Verse three

Oh, metoposaur (meh-top-o-sore) was slimy, long, and wet,  
Oh, yuck! (make "disgusting" faces)  
Oh, metoposaur was slimy, long, and wet,  
Oh, yuck!  
It used its jaws and its sharp teeth,  
To catch the meat it liked to eat,  
Oh, metoposaur was slimy, long, and wet!

Verse five

Aetosaur (ate-o-sore) had plates upon its back,  
Clack, clack (say it loud and clap hands behind back)  
Aetosaur had plates upon its back,  
Clack, clack  
It had spikes by its head  
Long legs, or so I've read,  
Oh, aetosaur had plates upon its back!

Verse six

*Coelophysis* (seal-o-fie-sis) was one of the first dinosaurs,  
Oh, no (say loud and run in place)  
*Coelophysis* was one of the first dinosaurs,  
Oh, it had hollow bones,  
And long legs to help it go,  
*Coelophysis* was one of the first dinosaurs!



Petrified Forest National Park Word Search

phytosaur    ferns    insects  
fossils    water    crabs  
teeth    fish    million  
*Placerias*    trees    Triassic  
bones    *Desmatosuchus*

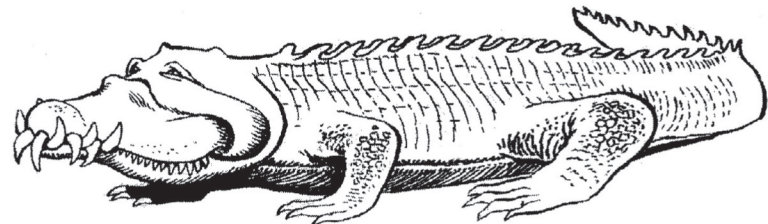
T	D	T	H	M	I	L	L	I	O	N	F	G	W	O	B
H	J	R	W	Q	N	P	L	A	C	E	R	I	A	S	L
T	F	I	S	H	S	H	K	V	F	A	F	Y	T	W	P
C	Z	A	U	Q	E	V	I	M	T	O	T	E	E	T	H
O	B	S	D	Z	C	T	I	V	W	M	S	P	R	Q	A
D	E	S	M	A	T	O	S	U	C	H	U	S	T	N	X
K	N	I	R	B	S	S	D	Q	S	R	U	C	I	H	S
N	F	C	M	O	Z	A	W	E	O	Q	A	V	N	L	K
T	L	J	P	N	I	U	E	Z	C	R	W	B	M	P	S
S	T	E	K	E	L	R	Y	I	X	P	V	E	S	N	W
Q	H	B	C	S	T	X	A	G	B	O	R	X	N	V	Y

PREHISTORIC POETRY

Hey kids! Petrified Forest National Park has a lot of fun stuff for you to see. One way for you to have fun, while learning about the park, is to write a poem. Poets express themselves, their thoughts, and their feelings using colorful sentences, fun phrases, or rhyming words. They often write about something that is important to them, like Petrified Forest National Park is important to all of us.

Here's an example of a poem about fossils at Petrified Forest National Park. Can you add more to it? Use the space below to add your own rhymes to the poem.

*Those trees, those trees, those petrified trees!  
Never will you see trees such as these.  
All the reds and blues and yellows and browns,  
Like the jewels embedded in royal crowns.  
Watch your step. Don't bump your toe!  
Those trees were trees long ago.  
And then there are animals not known today,  
Which once filled this land and made their way  
Across streams and rivers and swamps and muds  
Their footsteps echoing with great big thuds.  
Fossilized bones, and teeth, and armored plates,  
Even coprolites, fossilized poop, for goodness sakes!  
Clam shells, and footprints, and fungus infestation,  
Are all found in the park, in the Chinle Formation.  
These fossils are clues to the past, the ancient Triassic,  
The dawn of the dinosaurs, the time before the Jurassic.*



MAKE YOUR OWN FOSSILS

Materials and Equipment:  
Seashells, leaves, buttons, or other objects (Be creative!)  
Modeling clay  
Plastic spoon  
Spray cooking oil  
Small paper cups  
Plaster of Paris  
Water

Procedure:

1. Press a ½" thick piece of clay into the bottom of the cup.
2. Push your object into the clay. Remove it and check the impression left behind.
3. Spray a thin coat of oil onto the clay surface, over the impression.
4. Half fill a second paper cup with plaster of Paris, add water gradually and stir until the mixture becomes thick and creamy. Pour the plaster over the clay in the first cup.
5. The next day, separate the clay from the plaster and check out your fossil cast!



FOSSIL ARCHITECTURE

How can scientists recreate an animal from just a pile of bones? Most of the bodies of prehistoric animals are gone, having rotted or crumbled away. Fossilized bones, however, provide clues which help scientists create an image of what the animal may have looked like.

Often broken bones are all that is found. Paleontologists look for as many pieces as possible and then rebuild the skeleton like a jigsaw puzzle.

Get a hint on how paleontologists recreate a fossil animal and build your own!

Materials:  
Pipe cleaners

What to do:

1. Use ten to twelve pipe cleaners to build an animal skeleton. See the example drawing.
2. Attach two or three pipe cleaners to make the head, backbone, and tail.
3. Bend and wrap one pipe cleaner for the front legs, and another for the rear legs.
4. Cut pipe cleaners different lengths and twist them around the spine for the ribs.
5. Bend the pipe cleaners to change the skeleton shape.

How does your fossil animal look?

